HISTORIC BUILDINGS: CONSERVATION, MANAGEMENT AND POLICY ISSUES

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Contents

Summary

A multi-factorial approach (e.g., urban design, architecture, civil and mechanical engineering) should be adopted to preserve the essential features of the building's history and cultural heritage.

Conservation and restoration are performed for cultural reasons and are based on scientific motivations whereas pre-existing conditions are "renovated" primarily for economic and utility reasons.

Priority should be given to the environmental aspects of the conservation treatments and the microclimate, lighting and air quality parameters as well as organization, both when in public view and in storage should be taken into consideration.

When planning restoration treatments, exhibition conditions, storage and transport of the artefact, building management should have a *conservation record* containing specifications including the materials used and their composition, procedures, the conservation condition of the artefact and other relevant historical factors.

Building maintenance and restoration are an important contribution to sustainability, and by applying suitable maintenance and restoration methods it is possible to reduce the amount of material and energy flows and emissions.

The evaluation analyses of the environmental conditions have to be realized by means of both a conservative record procedure and an environmental record procedure.

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In a global approach, more focus should be given to safety issues during the planning and design phase by using safety methodologies for risk analysis and foreseen high quality components for the systems that are involved in the safety functions (i.e. automation and control systems).

In Europe analytical risk procedures are available and reliable building automation systems are already commercialised. Although general guidelines, clear references and structures should be developed.

1. Introduction

Urban heritage and historical buildings are positive issues in a field where there has been a significant lack of platforms in global cooperation. To preserve the essential features of the building's history and cultural heritage, it is necessary to single out the best means of suitable protection from decay and destruction.

The identification of these processes is the relevant topic of some important activities at national and international levels (see, for example, COST Action C5).

Urban conditions that require both design and construction methods as well as management tools have to be carried out by combining aspects from a multi-factorial point of view: urban design, architecture, civil and mechanical engineering, work done by conservators and curators, building management systems. Construction problems include building maintenance, preservation and restoration of old buildings and avoiding decay.

In order to describe the problems involved in the maintenance and handling of historic building properties on a larger scale, it is useful to base it on the "scientifically" defined principles of restoration as well as the concept of cultural heritage or cultural property.

Can a building be considered cultural property? Can a building represent a monument in itself? How can the property housed within a historical building be valued (as is the case with European museums)?

Not all treatments carried out on pre-existing conditions can be considered "restoration" in that the entire structure is not necessarily a cultural property according to the concordant definition of restoration: the conservation of evidence to historic culture or civilisation rather than the so-called "renovation" of a building simply to be able to utilize the structure.

In other words (Brandi), restoration is carried out only when the object or structure is judged deserving of being preserved for its value. Conservation and restoration is performed for cultural reasons and therefore based on scientific motivations whereas pre-existing conditions are "renovated" primarily for economic and utility reasons.

Technological problems are also important factors in the conservation of an artefact when, for example, it is necessary to analyse the deterioration of the materials and have

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a full understanding of the object in question (the materials and their composition), and to define the environmental conditions for optimal conservation.

When the time comes to apply a particular procedure and/or strategy, it is important to make valid operative and technical choices that involve consulting the ample diffusion of interdisciplinary collaboration that draws from a treasure trove of past experience in maintenance and restoration.

All maintenance carried out must guarantee to comply with the following fundamental criteria:

- the treatment will be limited to only that which is necessary (already speculated in the 18th century)
- complete reversibility using treatments that do not interfere with or damage the property
- compatibility with the materials of the original property
- durability
- conservation of the property's authenticity; any new additions must be recognizable on sight and must be distinct from the ancient original
- pointed up-to-dateness; having the "courage" to express a chosen treatment with modern techniques.
- Any structural intervention, like any restoration treatment, must be included in a plan that foresees a series of activities that are dictated by the pursuit of perfection:
- the restoration procedures must always ensure that they will protect and not harm the environment
- standard maintenance must be of prime importance and must be developed according to a plan that foresees all interrelated disciplines with stable and secure funding
- safeguarding must extend to the entire historic building property
- maintenance work must be carried out by qualified professionals
- the link between history, technique and conservation must always be maintained; an exemplary case would be any additional structural work carried out in full respect of the building and integrated with interdisciplinary elements.

2. Conservation and Restoration in Historical Buildings

When handling historical buildings, it is important to plan indirect (prevention) and direct (conservation and restoration) treatments carefully in order to guarantee the long-term conservation of the building itself, as well as of each artefact.

Priority should be given to the environmental aspects of the conservation treatments and should take into consideration the microclimate, lighting and air quality parameters as well as organization, both when in public view and in storage.

Should these steps not suffice in reducing or preventing the progressive deterioration of the building, the conservation and restoration techniques used will respect the material

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composition and the conceptual integrity of the piece according to historic, aesthetic and technical evidence.

All treatments or parts of treatments that present a cultural or significant value to the historical relevance of the building will be identified and retained unless they interfere with the conservation. If these parts are removed, they will be documented and, when possible, conserved.

If the work requires aesthetic restoration, any treatment requesting the integration of elements must be based on the principle of recognizability and must be kept within the minimum limits necessary to enhance the distinct qualities of the work without altering its authenticity.

Conservation and restoration treatments must:

- be carried out according to the specifications of suitability established during the examination of the conditions of conservation of the artefact (see documents pertaining to conservation);
- provide documentation and procedure reports that include the materials and techniques used, developed in compliance with the guidelines supplied by the Institutional Organisations (i.e. Ministry of Fine Arts and Cultural Affairs in charge of conservation and restoration), as well as any documents issued by the Standards currently being published;
- be carried out by professional, highly qualified conservators/restorers and entrusted externally with procedures that comply with Regulations and Laws, such as Italian Law n° 109, dated February 11 1994, regarding Public Works and Regulation ex art. 8 paragraph 11sexies – DM 3/8/2000);
- Code of ethics Standards, if available, such as the E.C.C.O., European Confederation of Conservator-Restorer Organizations, 1993, the Conservator-restorer Code of Ethics, ARI 1994, and the Professional Code of Ethics, ICOM 1996, have to be taken into account.

To ensure that conservation and restoration treatments meet the qualitative objectives mentioned above, they must provide:

- the recognition, analysis, interpretation and synthesis of the data collected on the artefact: the state of conservation correlated to the methods and material components used, both original and as a result of the treatment, and to the pertinent environmental factors;
- contributions made by art-historians and scientific specialists in the field;
- a plan for the restoration emphasising the fact that the intervention will be kept to a minimum thereby favouring only the treatments indispensable to the conservation of the artefact.
- complete photographic, graphic and written documentation of the restoration phases;
- the use of substances and techniques that have been subject to careful testing and scientific examination in compliance with standard procedures and that are completely reversible and compatible with the original materials.

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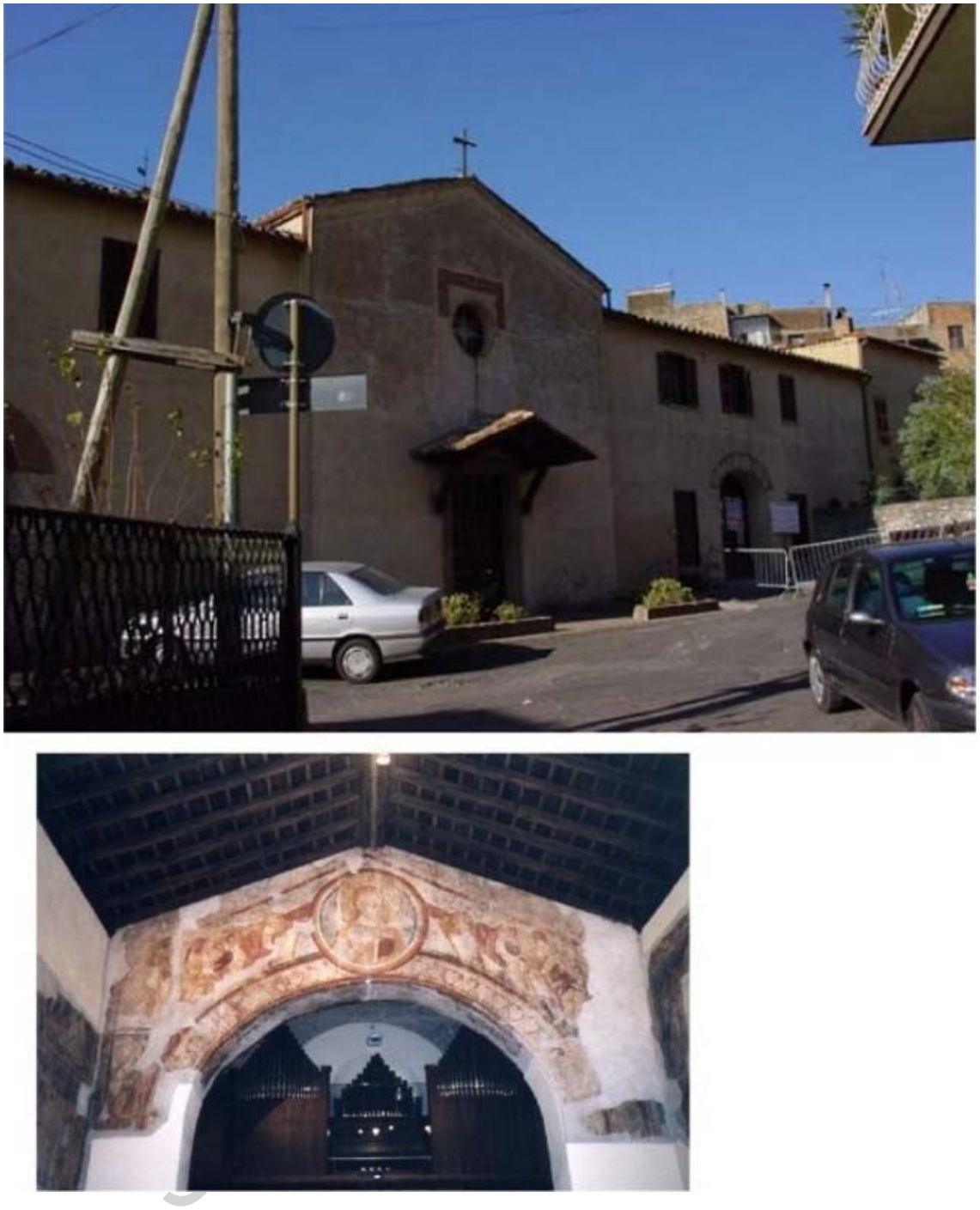

Figure 1: S. Maria in Monte Dominici in Marcellina (Rome), an example of "reversal" of the church: the original plan of the church was inverted in the 17th century placing the current entrance to the church where the apse once stood. The arch, that today marks the boundary of a sort of "endonarthex", was the triumphal arch in front of the presbytery.

Figure 2: S. Francesco in Palombara Sabina (Rome), example of "reuse": the convent's church became the cemeterial church. One of the side naves is used as an ossuary by eliminating the interior nave and opening up an access on the external side.

Figure 3: S. Stefano dei Ferri in Tivoli (Rome), example of an object that has been completely transformed from its original use until its present state of distortion and semi-abbandonment. Traces of 5th century Roman pre-existence can be seen in the stratifications upon which a Medieval plan was built that was in turn altered by further modifications.

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Figure 4: S. Antonio da Padova in Tivoli (Roma), where the 15th century monastery, built over a Roman Villa dating to the II-1 century BC, is used today and has been transformed into an aristocratic residence, whereas the church is in a state of complete abbandon.

Professionals for the application of the Standards could be included in the framework as indicated in the following Table I, mentioned in the document *Technical Guidelines on Functional Standards and Development of Museums*, related to the Italian Law DL n.112/1998.

	Aims	Professionals
Conservation record	1.preventive conservation 2.maintenance 3.restoration 4.exhibit 5.storage 6.movement	restorer
Environmental record	1.knowledge of the relationship between environment and work of art	biologist chemist physician restorer
Intervention	1.interventions to obtain optimised environmental conditions	architect engineer biologist chemist

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		physician conservator/curator restorer
Movement	1.indoor 2.outdoor	restorer chemist physician architect engineer conservator/curator
Packing	1.knowledge of the work of art 2.knowledge of chemical properties for material used in packing 3.insulation choices	restorer chemist physician engineer
Transport	1.transport means 2.container insulation choice	restorer chemist physician engineer

Table 1: Professional for the application of Standards

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